



## Section C:2

### *River Corridor*

#### **PROJECT MANAGERS**

P.M. Knollmeyer, RL  
(509) 376-7435

N.C. Boyter, FH  
(509) 373-3725

## **SUMMARY**

The River Corridor Project (RCP) consists of the following projects: 300 Area Liquid Effluent Facility (LEF) WBS 1.2.3.2, Project Baseline Summary (PBS) WM05; 300 Area/Special Nuclear Materials, WBS 1.4.4, PBS TP04; Transition Project Management, WBS 1.4.6, PBS TP12; Accelerated Deactivation, WBS 1.4.8, PBS TP10; 324/327 Facility Transition, WBS 1.4.10, PBS TP08; and Hanford Surplus Facility Program (300 Area Revitalization), WBS 1.4.11, PBS TP14.

NOTE: B Plant WBS 1.4.1, PBS TP01 work scope was completed in FY 2000 and contains no data. Therefore, the PBS has been eliminated from this and all future reports.

PBS WM05 is divided between WBS 1.2.3.1, Liquid Effluents (200 LEF) and WBS 1.2.3.2, 310 TEDF/340 Facility (300 LEF). The 310 TEDF/340 Facility work scope is now included in the River Corridor Project, whereas the Liquid Effluents (200 LEF) work scope has remained in Waste Management Project. For the purpose of performance analysis, PBS WM05 is reported in its entirety in the Waste Management Project, which has the majority of the work scope and funding incorporated in its baseline.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of June 30, 2001. All other information is as of July 25, 2001.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that two milestones (67 percent) were completed on or ahead of schedule and one milestone is overdue.

## **NOTABLE ACCOMPLISHMENTS**

**The 324 Building Deactivation Project** — All twenty-one 3-82B Grout Containers have been loaded out and shipped to the Central Waste Complex, completing the work scope of M-89-02, "Complete Removal of 324 Building Radiochemical Engineering Cells (REC) B-Cell Mixed Waste (MW) and Equipment." Additionally, transfer of the D Cell skids and ion exchange columns to B Cell was completed, and size reduction of the D Cell skids initiated.

**The 327 Building Deactivation Project** — Through effective deployment of minimum safety (min-safe) staff, the last retrievable nine cans were transferred from Dry Storage to A Cell; the first of two lead lined drums of dry storage waste was loaded; the north backflow preventer was installed; and the annual crane preventive maintenance was completed.

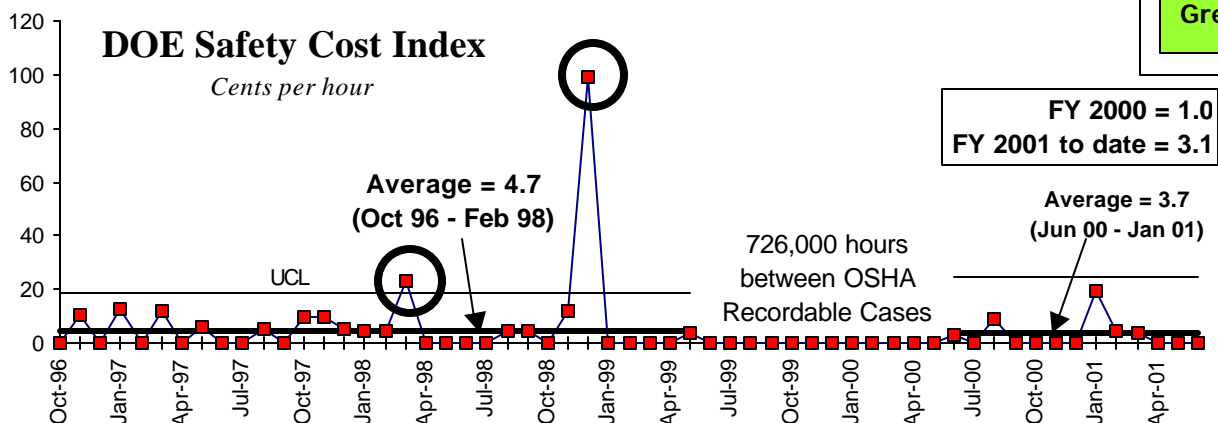
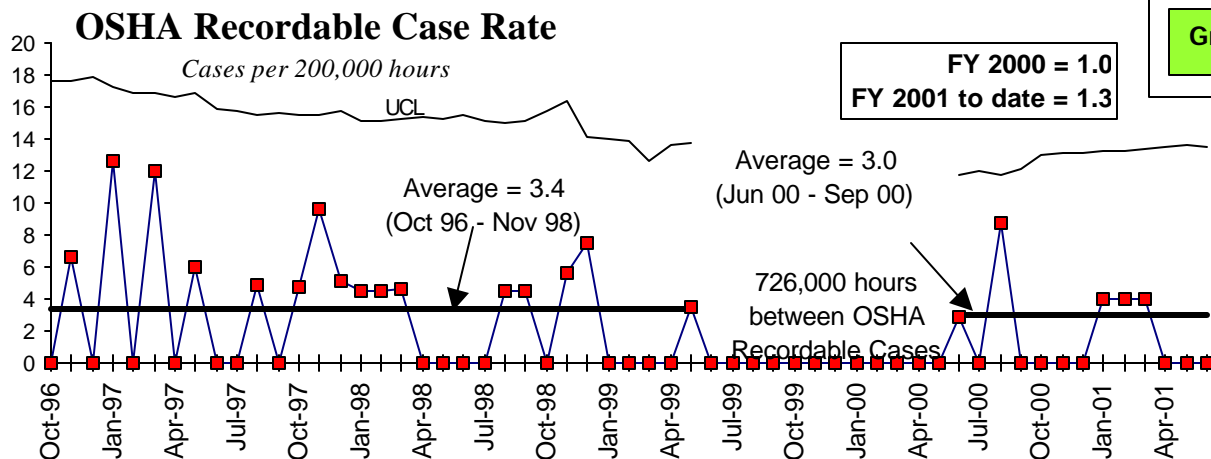
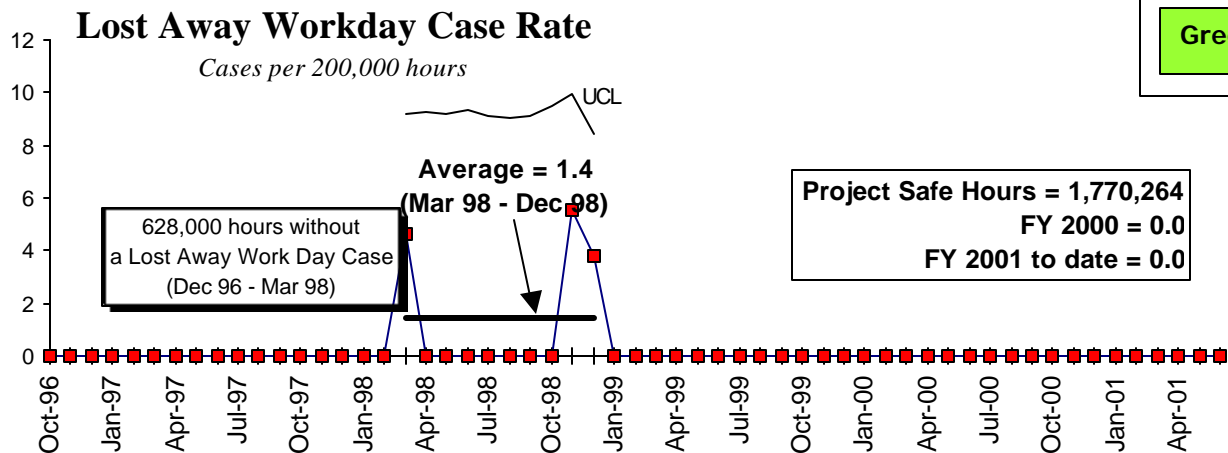
**The 300 Area Treated Effluent Disposal Facility (TEDF) 340 Facility** — During the month of June, the TEDF Facility treated 5.17 million gallons of wastewater. In addition, a video inspection of 340-A above ground tanks was performed; and piping modifications were completed to improve operation of the biocide addition system on the 310 TEDF ion exchangers.

**Accelerated Deactivation Project** — The project has completed all nine shipments (135 metric tons) of contaminated fuel to the Low-Level Burial Ground (LLBG). Additionally, both water towers scheduled for demolition are now on the ground; the first entry into 224-T's E Cell was successful, finding no airborne and minimal contamination; packaging and shipping PCB waste from the 242-B/BL facility is complete.

**Equipment Disposition Project** — The first of four tall well cars was shipped from Hanford to Memphis, TN. on July 16, 2001.

## SAFETY

The River Corridor Project (RCP) has achieved more than 1.75 million safe work hours since its last lost away workday case. The OSHA Recordable Case Rate is 1.3, which is above the company goal of 0.9. The overall rating for RCP is green.



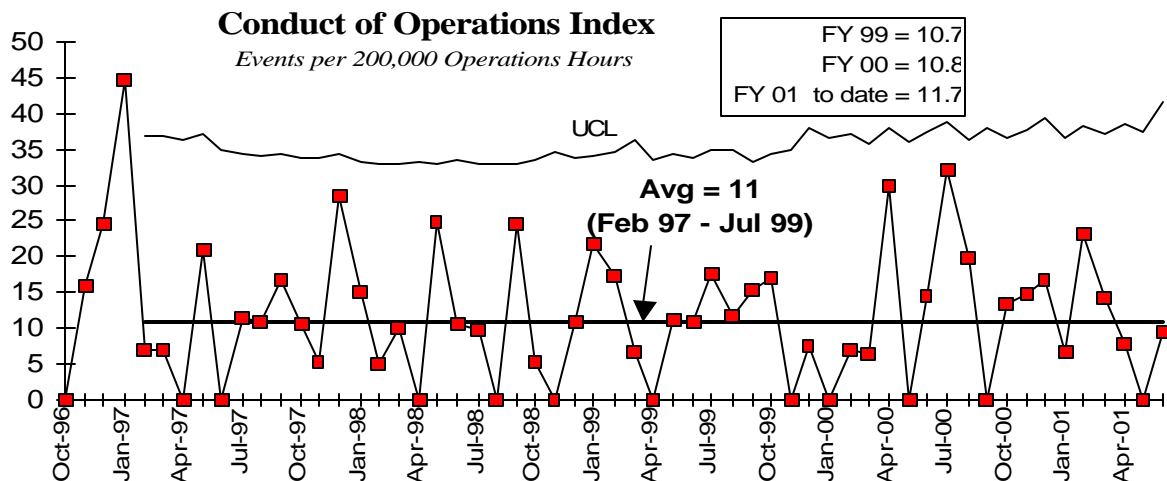
## ISMS STATUS

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- The RCP ISMS "Sustain and Maintain" process is in place. RCP is supporting the update of the FH annual ISMS training module through the ISMS Center of Expertise.
- The Voluntary Protection Program application was submitted to the DOE-RL Manager on June 21, 2001, and forwarded to DOE-HQ. The application will be reviewed by DOE-HQ personnel and a DOE-HQ on-site field review scheduled for later in the year.

## CONDUCT OF OPERATIONS

Green



## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### Breakthroughs

- **Technical Review of 327 Hot Cell Removal**— Technology Management, supported by RCP, completed a review of the feasibility of intact removal of the hot cells from the 327 Facility. The review team found the concept of intact removal to be feasible, and potentially had significant ALARA, cost, and schedule benefits. RCP concurs with the conclusions and recommendations for near term actions as first steps toward re-planning the deactivation baseline. RCP and Technology Management collaboratively prepared the *327 Building Stabilization Science and Technology Plan*, which provides a schedule for identifying and demonstrating technologies supporting monolithic hot cell removal.
- **Value Engineering for Configuration Management** — The RCP procedures, "Configuration Baseline Management," and "Engineering Document Change Control," were approved June 1, 2001. The two procedures authorize the use of alternate configuration management methods. Use of the alternate methods has the potential to dramatically change the way in which facility modifications are documented within the RCP. The procedures allow for a streamlined configuration management process that should have the greatest benefits during demolition and equipment removal activities. (*No further status to be provided.*)

Green

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- Permit By Rule Treatment at 300 Area TEDF** — FH is investigating the potential to treat limited categories of liquid non-radioactive hazardous wastes using the existing capabilities of the 300 Area TEDF by applying a permit exclusion available within the waste regulations. Treatment of hazardous wastes at TEDF could provide a low-cost option for disposal of some wastes currently sent off-site. The regulatory analysis is complete, and for the next two months the benefits and site needs for waste treatment will be compared against the costs and risks of implementing the treatment. A decision on whether to proceed will be made in September 2001.

Green

## Opportunities for Improvement

- New EM-50 Funds (\$450K) for Robust Manipulator Arm** — Via support from EM50, RCP's 324 Building will acquire an AEA ARTISAN manipulator arm to support hot cell deactivation. ALARA/extremity-dose savings are expected due to an anticipated reduction in maintenance and repair. AEA's Project Manager for the ARTISAN arm met with 324 Building staff during the week of June 25, 2001. The focus of the visit was to ensure that the robotic system and facility interface requirements are well defined and mutually understood. Following site testing and operations training, the ARTISAN will be deployed in the Shielded Materials Facility hot cells located in the 324 Building. Delivery of the ARTISAN arm to Hanford is expected by the end of FY 2001. (No further status to be provided.)

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## UPCOMING ACTIVITIES

**Uranium Disposition** — Approximately 5 metric tons of miscellaneous uranium scrap materials will be transferred to the Low-Level Burial Ground by September 30, 2001. In addition, the final disposition of thorium materials located within the 303-K Facility will be completed by September 30, 2001.

**327 Authorization Basis** — Implement technical update of 327 Authorization Basis by the end of FY 2001. This was slipped from May 2001 due to resource limitations created by the new requirements of the 10CFR830 Nuclear Safety Rule.

**300 Area Skyline Initiative** - Demolish 303-K and complete disposition of the water towers by September 30, 2001.

## Milestone Achievement

Green

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2001
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	0	0	0	1	0	0	0	1
DOE-HQ	0	0	0	0	0	0	0	0
RL	0	2	0	0	1	1	0	4
Total Project	0	2	0	1	1	1	0	5

Only TPA/EA milestones and all FY 2001 overdue and forecast late milestones are addressed in this report. Milestones overdue are deleted from the Milestone Exception Report once they are completed. The following chart summarizes the FY 2001 TPA/EA milestone achievement and a Milestone Exception Report follows. The last milestone table summarizes the first six months of FY 2002 TPA/EA milestones.

Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
M-89-02	Complete Removal of 324 Building Radiochemical Engineering Cells (REC) B-Cell Mixed Waste (MW) and Equipment.	The twenty-first and final 3-82B shipment to the Central Waste Complex was completed July 18, 2001, 14 days ahead of the revised date of July 31, 2001. This completes M-89-02.
DNFSB Commitments		
	Nothing to report at this time.	

## MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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### Overdue – 1

TRP-99-901 1.4.10	EA	Complete Removal of 324 Radio-chemical Engineering Cells (REC) B Cell Mixed Waste (MW) & Equip.	11/30/00	07/18/01
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**Cause:** Technical and operational issues delayed completion of this work scope.

**Impact:** Completion date of TPA milestone M-89-02 was not met.

**Corrective Action:** A revised schedule was developed with the support of RL and Ecology. This milestone is now complete.

FY 2002 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
MX-92-06-T01	"Complete Disposition for all Site Unirradiated Uranium"	Due 12/31/01 — On schedule.
DNFSB Commitments		
	Nothing to report at this time.	

## PERFORMANCE OBJECTIVES

Outcomes	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	<b>FHI-M8 – 300 Area Cleanup</b>	
	Measure 1: Accelerate 300 Area Cleanup	
	Expectation 1: Deactivate 324/327 Buildings	
	Base: Complete 26.5% remaining 324/327-baseline work by June 30, 2002.	9.9 percent of the remaining life-cycle work scope completed October 2000 through June 2001.
	Base: Complete B Cell cleanout and shipment of B Cell waste to 200 Area Burial Grounds.	The twenty-first and final 3-82B shipment to the Central Waste Complex was completed July 18, 2001, 14 days ahead of the revised date of July 31, 2001. This completes the cleanout of B Cell and the shipment of B Cell waste to the 200 Area Burial Grounds.
	Stretch: Complete additional 2.5% remaining 324/327-baseline work.	No additional work scope has been performed to date.
	Expectation 2: Disposition surplus facilities	
	Base: Disposition 3902A, 3802B & 303-K by September 30, 2001.	Completed 3902A and 3902B water tower dismantlement. The 303-K demolition schedule has been revised to incorporate the BCR for CERCLA to RCRA waste disposition (FSP-01-050). The Notice of Construction (NOC) has been approved by DOH and is at the EPA. BHI has provided a schedule and estimate that completes 303-K demolition by September 20, 2001.
	Stretch: Disposition 377 Bldg. by June 30, 2002.	The EE/CA #1, which includes the 377 building demolition scope, was completed June 13, 2001, and submitted to RL. However, a decision has been made by RL not to proceed with the EE/CA process at this time. The work scope will need to be performed under RCRA vs. CERCLA disposition regulations.
	Expectation 3: Disposition uranium billets, uranium dioxide, scrap materials in 200/300 Areas, and 303-K thorium-232 by September 30, 2001.	Completed shipment of uranium billets and UO <sub>2</sub> to the DOE Portsmouth Site in Ohio. Additionally, the Project has completed all 9 shipments of contaminated fuel (135 MT) to the low level burial grounds.
	Measure 2: Support RCP Contract Transition	
	Expectation 1:	
	Stretch: Support RCP contract transition by July 1, 2002.	A draft transition plan has been prepared.

Transition Central Plateau to support  
long-term waste management

**FHI-M3 – 200 Area Facility Disposition**

**Measure 1: Disposition Surplus Buildings  
and Rolling Stock**

**Expectation 1:**

**Base:** Decontaminate &  
Decommission (D&D) 233-S & 233-SA

Work will be initiated July 1, 2002.

Facilities by September 30, 2004.

**Stretch:** D&D 233-S & 233-SA by  
June 30, 2004.

Work will be initiated July 1, 2002.

**Expectation 2:** Complete installation of  
new roofs on PUREX & B Plant by  
September 30, 2002.

Work will be initiated February 1, 2002.

**Expectation 3:**

**Base:** Disposition contaminated  
railcars by June 30, 2006.

The first of four tall well cars was shipped from  
Hanford to Memphis, TN. on July 16, 2001.

**Stretch:** Disposition contaminated  
railcars by August 31, 2005.

Nothing to report.

**Super stretch:** Disposition  
contaminated railcars and  
heavy equipment by September  
30, 2003.

Nothing to report.



## FY 2001 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES

### CUMULATIVE TO DATE STATUS – (\$000)

Green

		FYTD									
	By PBS	BCWS	BCWP	ACWP	SV	%	CV	%	PEM	EAC	
PBS TP04 WBS 1.4.4	300 Area/ Special Nuclear Materials	\$ 3,250	\$ 3,159	\$ 3,004	\$ (91)	-3%	\$ 155	5%	\$ 4,357	\$ 4,712	
PBS TP12 WBS 1.4.6	Transition Program Management	\$ 4,947	\$ 4,947	\$ 4,572	\$ 0	0%	\$ 375	8%	\$ 6,747	\$ 6,235	
PBS TP10 WBS 1.4.8	Accelerated Deactivation	\$ 2,904	\$ 2,848	\$ 2,878	\$ (56)	-2%	\$ (29)	-1%	\$ 3,611	\$ 4,237	
PBS TP08 WBS 1.4.10	324/327 Facility Transition	\$ 26,185	\$ 23,040	\$ 21,980	\$ (3,145)	-12%	\$ 1,061	5%	\$ 35,153	\$ 34,157	
PBS TP14 WBS 1.4.11	Hanford Surplus Facility Program (300Area Revitalization)	\$ 574	\$ 668	\$ 510	\$ 94	16%	\$ 157	24%	\$ 1,345	\$ 1,271	
Total		\$ 37,860	\$ 34,662	\$ 32,943	\$ (3,197)	-8%	\$ 1,719	5%	\$ 51,212	\$ 50,612	

Notes: RL-Directed costs (steam and laundry) are included in the PEM BCWS. 310 TEDF/340 Facility performance data is reported under PBS WM05 (Waste Management).

Authorized baseline is per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM).

## FY TO DATE SCHEDULE / COST PERFORMANCE

The unfavorable schedule variance was due to a change in strategy for preparation in support of SNF removal, 324 B-Cell waste shipment delays and crane repairs. The favorable cost variance is primarily due to lower than planned FY 2001 fee accruals and favorable variance distributions (FY 2000 unearned fee reversals).

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

### Schedule Variance Analysis: (-\$3.2M)

#### 324/327 Facility Transition — 1.4.10/TP08

**Description and Cause:** The unfavorable schedule variance (-\$3,145K) was due to several factors; the primary contributor continues to be the Spent Fuel Removal preparation (-\$1,757K). The baseline does not reflect current single contractor methodology developed in the vendor forum, making it difficult to report progress against the current baseline. Other contributors include the completion of shipping B Cell waste to the central plateau (-\$181K), and the delay in starting the D Cell work (-\$452K) that required an approved NOC prior to start.

**Impact:** Tri-Party Agreement milestone M-89-02 ("Complete Removal of 324 Building Radiochemical Engineering Cells B Cell Mixed Waste and Equipment") was missed but is on target to be complete by the regulator agreed to revised date of July 31, 2001. Spent Fuel Removal preparation continues to support initiation of spent fuel removal from B Cell in July 2002.

**Corrective Action:** Spent Fuel removal project work scope is being updated to reflect a single contract methodology, which is targeted for implementation by July 31, 2001. Although delayed from the original TPA milestone date, waste shipments to the central plateau are on schedule to be complete by mid-July, and completion of D Cell work scope is expected by September 29, 2001.

#### **Hanford Surplus Facility Program — 1.4.11/TP14**

**Description and Cause:** The favorable schedule variance (+\$94K) was due to Water Tower Demolition activities completed ahead of schedule.

**Impact:** No impact.

**Corrective Action:** No corrective action required.

All other schedule variances are within threshold.

### **Cost Variance Analysis: (+\$1.7M)**

#### **324/327 Facility Transition — 1.4.10/TP08**

**Description and Cause:** The favorable cost variance (\$1,061K) was primarily due to lower than planned FY 2001 fee assessment accruals and a favorable variance distributions received in May and June.

**Impact:** No Impact.

**Corrective Action:** Funds made available via underruns will be utilized toward other high priority workscope within the project.

#### **Hanford Surplus Facility Program — 1.4.11/TP14**

**Description and Cause:** The favorable cost variance (\$157K) was due to labor resources diverted to other high priority work, and a favorable variance distributions received in May and June.

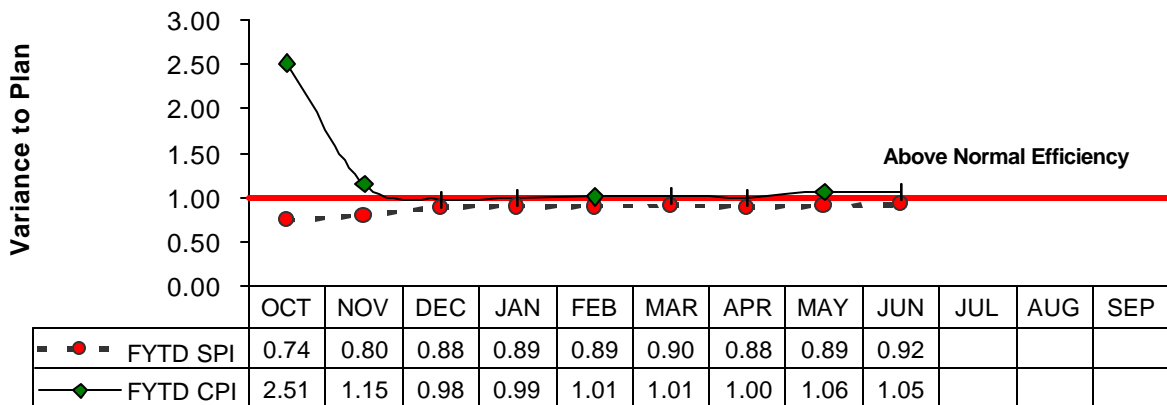
**Impact:** No Impact.

**Corrective Action:** Funds made available via underruns will be utilized toward other high priority workscope within the project.

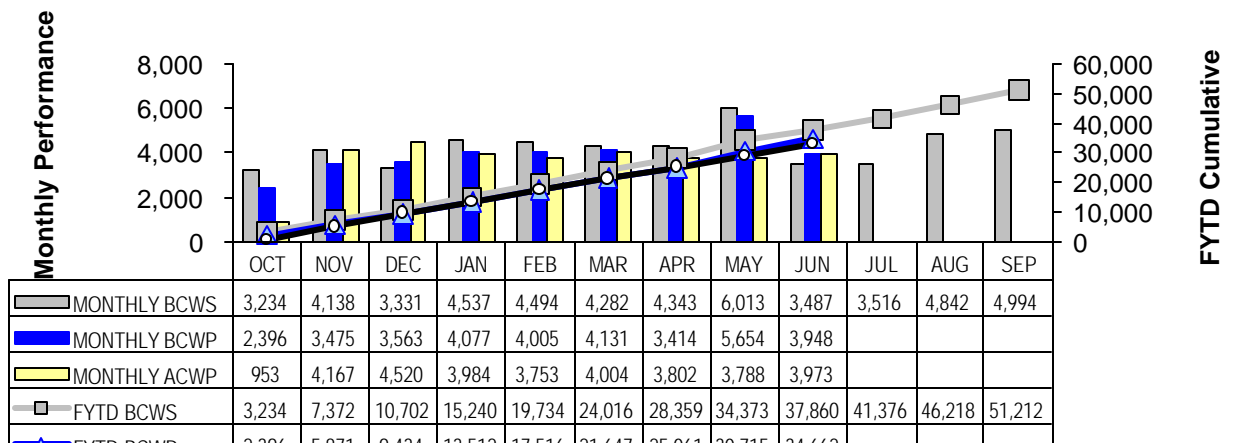
All other cost variances are within established thresholds.

## SCHEDULE / COST PERFORMANCE (MONTHLY AND FYTD)

Cost/Schedule Performance Indices (FYTD)



Performance Analysis  
FYTD and Monthly (\$000s)



## FUNDS MANAGEMENT

### FUNDS VS SPENDING FORECAST (\$000)

### FY 2001 TO DATE

Note: Does not include RL Managed data or post-2006 TP10 (\$649).

	Funds	FYSF	Variance
<b>1.4 River Corridor</b>			
TP01, TP04, TP10, TP12, TP14, WM05			
Project Completion - Operating	\$ 48,964	\$ 47,405	\$ 1,559
Post 2006 - Operating	\$ 5,637	\$ 5,342	295
<b>Total</b>	<b>\$ 54,601</b>	<b>\$ 52,747</b>	<b>\$ 1,854</b>

[Status through June 2001]

#### Carryover Work Scope Projection

TP08 – Crane maintenance/repairs	\$278
TP14 – Skyline Initiative/EECA-DQO	<u>\$428</u>
	\$706
<u>Emerging Requirement FY 2002</u>	
TP08 – 324 Spent Nuclear Fuel preparation activities	\$575

## ISSUES

### Technical Issues

**Issue:** BHI verbally informed RCP that it may not be able to support the demolition schedule for the 303-K facility.

**Impact:** The delay will result in RCP missing the RCRA Part B permit condition of clean closure certificated submittal due September 30, 2001.

**Corrective Action:** BHI has provided a schedule and estimate that completes 303-K demolition by September 20, 2001, which will meet the PI, but will require an extension to the RCRA Part B permit closure. Ecology is receptive to an extension and the process to extend the permit closure to December 31, 2001 has been initiated. *(No further status to be provided.)*

**Issue:** Characterization activities at 224-T and 231-Z are impeded by the suspension of the non-destructive assay (NDA) program at the Plutonium Finishing Plant (PFP). The PFP program has been suspended due to problems associated with specific plutonium value calculations resulting from NDA measurements.

**Impact:** Delays characterization activities for both 231-Z and 224-T. These delays impact Master Documented Safety Analysis development, Fire Hazards Analysis, and Emergency Planning Hazard Analysis. These activities tie into the Safety Analysis Report compliance issues per the 830 Rule. In addition, there is a potential cost impact if an outside organization is used.

**Corrective Action:** Currently investigating replacement of PFP NDA program with PNNL NDA personnel. Initial investigation suggests that PNNL can support NDA at 224-T by mid-August, and 231-Z NDA activities in fiscal year 2002.

## REGULATORY ISSUES

**Issue:** The delay in approval of the NOC for 324 Building deactivation work has delayed D-Cell equipment size reduction (planned to begin in April 2001) to July 2001.

**Impact:** D-Cell work will continue to be delayed until the Notice of Construction (NOC) is issued. D-Cell delays will impact work in the pipe trench (August 2001), which may jeopardize spent nuclear fuel shipments (July 2002).

**Corrective Action:** The NOC was received on June 29 and work on D Cell started on July 2. Work has proceeded much faster than planned on the D Cell project. In addition, incorporation of waste minimization ideas will likely reduce the number of containers shipped from 6 to 4, along with incorporating a shielded grout container design to address exposure concerns for personnel at 324 and at the Burial Grounds. *(No further status to be provided.)*

**Issue:** In preparing for transfer of a curium source from the 327 Facility fuel basin, it was determined that the source potentially violated an Operational Safety Requirement (OSR) and an Unusual Occurrence (UO) was declared.

**Impact:** This discovery delays the issuance of the developed Basis for Interim Operation (BIO), scheduled for transmittal to the DOE in June 2001.

**Corrective Action:** Specified recovery actions per the OSR were implemented to include suspending operations within the fuel basin. Subsequent information confirmed the OSR was not violated. Discussion continued with the Transportation and Packaging and Central Waste Complex staff to determine the requirements for disposition of the material. Based on the latest discussion an agreement on a path forward is close. *(No further status to be provided.)*

## EXTERNAL AND DOE ISSUES

None to report.

## DOE Requests

None to report.

## BASLINE CHANGE REQUESTS CURRENTLY IN PROCESS

PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY01 COST IMPACT (\$1,000)	SCH	TECH	DATE To FH CCB	FH CCB APR'VD	RL APR'VD	CURRENT STATUS
FSP-2000-002	11/2/99	Mark-42 Project Completion	\$304		X	04/05/00			Additional funding requested
FSP-2001-001	10/9/00	Baseline Adjustment to TP08	(\$496)		X				Draft Prepared
FSP-2001-056	5/24/01	Transfer of PNNL facilities to Fluor Hanford	\$526	X	X				On hold
FSP-2001-057	5/3/01	Engineering Study - Disposition of Remaining 300 area Fuel	\$70		X	6/20/01	6/20/01		Pending RL Review
FSP-2001-058	6/1/01	Revised Milestones for RL-TP04	\$0		X	6/20/01			6/15/01 Approved by RCP Board
FSP-2001-059	6/7/01	Delete Mani Decon Station; Add SWBD LT Storage, 3-82B SEP/SARP	(\$229)	X		7/3/01			FH CCB Approved 7/16/01. Forward to RL for approval.
FSP-2001-060	5/1/01	FY 2001 Award Fee	(\$829)	X			6/19/01	N/A	Implemented 6/20/01
FSP-2001-065	7/2/01	Revised Uranium Disposition Completion Dates	\$0	X		N/A	N/A	N/A	RCP Approved on 7/16/01
FSP-2001-066	7/10/01	New Approach for 324 Building Spent Nuclear Fuel	\$77	X	X	7/16/01			Re-review with FH CCB on 7/23/01
Advanced Work Authorization									
		None							

## KEY INTEGRATION ACTIVITIES

- Potential Technology Funding for 327 Building Deactivation** - The current FY 2002 planning budget for EM50's Transuranic (TRU) and Mixed Waste Focus Area (TMFA) as managed from Idaho National Engineering and Environmental Laboratory, now targets \$790K for technology tasks focused on waste equipment size reduction at Hanford. In top consideration for a portion of this funding are opportunities at the 327 Building (e.g., detachment of H Cell using diamond wire cutting; removal and size reduction of an IX-column presently stored in the 327 wet basin; and removal and size reduction of heating, ventilation, and air conditioning ducting). If funded, this project would be a collaborative effort for FH, the TMFA, and PNNL/EM50's Robotics Crosscutting Group.
- West Valley Hot Cells Proposal Resubmitted to EM50** - Based on a request from EM50, the Large Scale Demonstration and Deployment Project proposal for West Valley hot cell deactivation was rewritten and resubmitted May 2, 2001, for funding consideration. This proposal was initially submitted to EM50 in September 2000, but was not selected for the first round of awards. If funded in the next round of awards RCP will participate on the Integrated Contractor Team (ICT) for influencing hot cell technologies to be demonstrated at West Valley, and potentially transferred to RCP's 324 and 327 Facilities.